



The

GARzette

The Official Newsletter of the Gwinnett Amateur Radio Society
December 2013 <http://www.gars.org/> Volume 22, Issue 12



‘Tis the season for giving!



Happy Holidays Everyone!

Message From The President

According to the calendar on my wall, December is here. Can this be right? Where did 2013 go? I do not know for sure, but I can attest that the quickly evaporated year was nicely packed with fun amateur radio events. At some points in the year, it seemed GARS, Gwinnett ARES, and other area radio events happened every week. That is not a complaint – I think that is GREAT! Being out with my friends and family doing community and/or radio oriented activities is a splendid way to spend my time. As I have said in more than one June past, I hope they have Field Day in Heaven, because I do not want to leave all this fun behind! (And frankly, if they do, I hope that conditions are less than optimal because I enjoy a challenge.)



Kyle Albritton—W4KDA

Looking back at what GARS did this year, I see an impressive list of events. We started as always with a huge Techfest. We ran two dog show fund raisers and had one of the largest GA QSO party gatherings in recent memory. Many people got to know one another during the GARS May Madness contest this year. We held another “Satellites in the Park” in May and not only did we have great participation, but we also tuned some HF sectional dipoles while we were all there. We ran a QSL card event, the Dacula memorial day parade, the Shy Fox hunt, two events at Scoutland, Jamboree On The Air, a DX show and tell, and we found time to run about one hundred nets. GARS hosted three Technician level “ham crams” and our W5YI Volunteer Examiner team participated in twenty exam sessions, processing over one hundred fifty applicants. GARS members did a huge mountain of jobs and had another impressive showing at the Stone Mountain Hamfest. And let us not forget our unbelievable Field Day where we not only beat the indomitable NFARL in our gentleman's wager, but we also *won the 8A class for the entire nation*. There can be no disputing that 2013 was a remarkable year for the Gwinnett Amateur Radio Society.

I wonder what plans other GARS members have set for next year. I have amassed quite a few antennas, but nearly all are on the ground. My goal for 2014 is to get all, or at least most, of them up in the air (although I will be satisfied with *some*). I do not have a tower, so that makes getting them in the air more difficult. Still, I feel like 2014 is the year I will finally make it happen. I am not worried about things such as working all states on JT65 (two to go), or getting my first DXCC. Those accomplishments will come with time. Getting the aluminum and copper in the air is more important so that is where I am setting my sights for 2014. Although amateur radio is a hobby and service, it is my opinion that setting goals makes it more fulfilling.

The GARS holiday party is coming up Friday December 6th and I expect this year's gathering to be a bit more intimate. No band will be performing, but I am confident we will have a grand time, nonetheless. As always, I do hope to see all of you there. 2014 will be here in just a matter of weeks. I said something last year and you all jumped in and made it come true. So with a hopeful heart I would like to repeat it for 2014: “Let us all take part in making it another outstanding year for GARS and amateur radio.”

As always, may you have great health, wealth, and all your contacts be 59,

Kyle, W4KDA



GARS December Meeting

GARS Holiday Party! Friday, December 6th

See next frame (below)

**Meetings are held on the 2nd Tuesday of each month at 7pm.
(except December)**

**Sports Aviation Complex - Hangar 1
690 Airport Road
Lawrenceville, GA 30045**

[Directions](#)

DECEMBER MEETING GARS HOLIDAY PARTY!

**Friday, December 6, 2013
6:30PM Doors Open
7:00PM Eat (by reservation only), 7:30PM Meeting
Location: Our usual meeting place above**

Menu

*Balsamic Roasted Pork Loin
and
Southwest Grilled Chicken
with Pineapple Salsa
Buttered Orzo
Italian Green Beans
Sweet Potato Casserole*



If you do not have reservations for dinner, you are still welcome to attend the business part of the meeting.

To attend without eating, please plan to attend at 7:30 PM.

Coming in January

TechFest 2014

January 11, 2014, Lawrenceville, GA

Sponsored by the Gwinnett Amateur Radio Society and Gwinnett ARES

Location: Gwinnett Medical Resource Center

665 Duluth Highway (Ga120)

Lawrenceville, GA 30046

<http://gwinnettmedicalcenter.org>.

- ◆ **Free Admission —— Free Lunch —— Free presentations —— 9:00 AM - 2:00 PM**
- ◆ VE Session— 9:00 AM (Regular VE fees apply)
- ◆ **Free Tailgating** - Bring your old or new equipment to sell or trade (Bone yard opens at 8:00)
- ◆ **Free Indoor Table** for your clubs demonstrations - Sign up to share your expertise or interest (reservations required).
- ◆ We're pleased to have: Freeside Atlanta - an Atlanta Maker Space collective. <http://wiki.freesideatlanta.org/>
- ◆ Forums on : Propagation and Sun Spots: What to expect? +
- ◆ The NFARL table at TechFest will provide an opportunity to learn to solder with an electronic kit-building activity.
- ◆ And we will once more have our famous Chile Cook-Off. Bring a crock pot for judging.
- ◆ Plus many more exhibits: * How to remote your HF Station * D-STAR * Digital Modes * Amateur TV * Weak Signal VHF / UHF / Microwave Operating in the Southeast, and more...
- ◆ With your donation of \$5.00 or more, **a chance to WIN** a brand new FT857D with separation kit. On the home page www.GARS.org there's a link to make a donation. You do not have to be present to win this one. We are trying to keep the event FREE, and donations sure do help. \$5.00 a ticket or 5 tickets for \$20.00. (Tickets also available from most GARS officers.)
- ◆ Door Prizes include: the TH-F6A, handheld 144/220/440 MHz transceiver with dual-channel RX capability. The first Tri-Band HT you can operate EVERY DAY!

Prize drawing between 1:30 and 2:00.

- ◆ You are invited to EAT and COMPETE at the **GARS Chili Cook-off** at the GARS **TechFest**. Some of the best chili in North Georgia will be free for you to eat and enjoy. And if you think your version of your

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TechFest 2014 (cont'd)

(Continued from Page 4)

Grandma's chili is "the bomb" (sometimes literally), bring a crock pot full of it with you and compete for coveted honors among your amateur brethren.

Here is a partial list of Exhibitors

TOPIC	EXHIBITOR
Fun with Low Power Radio (QRP)	North Georgia QRP
Build an interesting beginners kit	North Fulton Amateur Radio League
Hams on Cams Using Video to Promote Amateur Radio	HamsOnCams.com
ARRL Section Manager	ARRL
ARES in Gwinnett County	Gwinnett ARES
D-STAR in Georgia	Georgia D-STAR
A Marriage of Old and New Technology - The Original Text Machine	Alford Memorial Radio Club
Military Auxillary Radio Service	Georgia MARS
QCWA	QCWA Chapter 49
Meteor Scatter, WSJT, Moon Bounce, VHF contesting	Southeastern VHF Society
GARS Youth Lounge	GARS Youth Lounge
TechFest	Gwinnett Amateur Radio Society
VE Session	W5YI VE
Venture Crew 73 Scouts	Venture Crew 73
Remote your HF Station	Ray Bailey
CW Keys and the fun of CW in Amateur Radio	CW Keys
Preview of ARC's Second Sunday Sessions	Atlanta Radio Club
Ham Radio Sound Webinar by Bob Heil	Bob Heil
ARISS	John Kludt
Freeside Atlanta - an Atlanta Maker Space collective.	Freeside Atlanta - an Atlanta Maker Space collective.
SOTA Georgia	SOTA
The Excitement of DX	SEDXC
Our Club and Keenahoochee Hamfest	Keenahoochee Amateur Radio Club
Technology Learning Center	Jim Phillips, AB2CD

Much more at www.GARS.org Click the TechFest link at the top of the page.

Questions? Send e-mail to Norm, wa4z xv@arrl.net or call him at 770-313-9410.

Electrostatic Discharge

Common Sense ESD Precautions

By David Kuechenmeister, N4KD

You have just received the kit that you've anticipate building for the last couple months, or you have decided to add a couple filters to that ACME DX-Monster and you start seeing symbols like



or or maybe . Possibly the kit instructions contain phrases like 'Static Sensitive' or 'ESD Precautions Required', or other dire warnings. Or maybe the package you just received from Digikey contains your order, but wrapped up in a pink or silvery-colored bag.

What's all that mean? Why should I care? What precautions should I take?

All of those symbols, warning, or subtle signs indicate that something is sensitive to Electrostatic Discharge, or ESD. ESD is just the difference in potential between two objects. Usually you and an expensive electronic part. Static electricity results when electrons are disturbed from their equilibrium position to a place where they would not normally be found, like what happens when you rub a balloon on a synthetic sweater. Without some sort of conductor to restore the equilibrium, a negative charge will exist on the surface. The charge is just waiting for a more positive surface to come along.

How much charge can we generate and how much does it take to be dangerous? On a dry day, I've managed to build enough of a charge on myself to where I've triggered a digital storage scope several feet away by just touching the back of a lab stool. Anyway, a person can feel a charge of 2,000 volts, or so. That's the snap you feel when you touch a doorknob on a dry winter day. A CMOS chip can be damaged by as little as 20-30 volts. MOSFETs succumb to around 10 volts. A GaASFET is probably the most sensitive component today and it will be toast with only a few volts. As a comparison, vacuum tubes can withstand a zap of 100,000 volts, shake it off, and keep on working.

The problem with ESD damage is that it is insidious. A part can sustain severe damage, but keep working until it is stressed in some other way. In a commercial environment, that reduces the yield, causes failures in the field, and ultimately causes unhappy customers. In our case, we'll probably see a failure that just doesn't make sense. Maybe the noise blanker quits working, or the TX relay in the Behemoth amp quits switching just about the time that station in Tierra del Fuego is calling CQ and no one else is there to answer.

It isn't just parts and subassemblies that need to be treated with care. Certainly, if you pick up a CMOS 4011, you should take ESD precautions. If you pick up an assembly with a bunch of 4011s,

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Electrostatic Discharge

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you should also take precautions to prevent ESD damage. Even if you take the case off of your rig, amp, or whatever, you need to assume that you'll cause damage unless you take the appropriate precautions.

You can protect your own components by taking a series of simple precautions. For example, never wear nylon stockings when handling static sensitive components, and that goes for the women readers as well! Seriously though, you should always ensure that anything that comes in contact with a sensitive component is at the same DC potential as the component. Damage only occurs when current flows through a sensitive device, and if everything is at the same potential then there will be no current flow.

1. Always leave static sensitive devices in their storage packaging until they are required for use. CMOS devices are usually supplied with their legs embedded in a conductive foam, or delivered in an anti-static tube. Never store a chip on ordinary plastic foam, cardboard or similar.
2. When moving a static sensitive component from one place to another ensure that both locations are at the same potential. If you are to hand a chip to someone, then make body contact before handing over the component. The body contact will allow the static charges between the both of you to become equal. Better yet, both of you should be wearing a wrist strap and connected to the same ground. If you are to place a component on a conductive surface, install on a circuit-board, or fit to a computer then you must make contact with the surface or unit before the device does. Only then will you, the unit and the device you are holding all become the same potential.



Wrist Strap and Connectors

3. When working on boards containing static-sensitive components, use an anti-static wrist-strap, or bracelet. An anti-static wrist-strap is cheap enough, but the strap MUST be worn in direct contact with your skin, and the other end grounded, or grounded via a one megohm resistor. Why a resistor? Well, if you accidentally touch a live conductor or build up a large voltage charge the resistor limits the current flowing to a safe level so it won't seriously hurt you. There is no rule to say that an anti-static wrist-strap shall be worn on the wrist. If you want to work with free hands, then you can wear it on your ankle.

4. Use an anti-static mat (a rubber mat upon which you place your project). It is impregnated with carbon so it is conductive. It too is grounded via a resistor, this time to limit the possibility of a short circuit. The idea is to cause a slow and controlled discharge, not a lightning bolt.
5. Use a grounded tip soldering iron. It is senseless to take all the other precautions only to zap the component as you solder it!
6. Importantly: From time to time check your wrist (ankle) strap and its lead for integrity,

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AC-vs-DC Power Transmission

THIS WAS A MYTH BUSTER FOR ME!

I was chatting with my old friend WA1RHP, Tom¹ via Skype this morning and while looking at Google Earth (via TeamViewer) he pointed to the nearby (in Ayer, MA) Power Conversion Facility. There were approximately 10 high voltage lines passing near Tom's house, and during the winter, due to increased power consumption, the noise level is prohibitive on the low bands (160-40 meters). He said that he had taken a tour of the Power Conversion Facility in Ayer, MA and learned that they were getting DC power from Canada and converting it to AC power for distribution in Central Massachusetts. I was surprised since I thought that DC power transmission was a much more lossy method of transmitting power over long distances. This is when I really got an education about this subject.



I did a search on-line for "AC versus DC transmission" and found the following site: <http://theenergycollective.com/rogerrethinker/204396/ac-versus-dc-powerlines>, where I learned a LOT more about Power Transmission. I won't spell it all out here, except to say that DC is the preferred method of long power transmission above ground, under ground *and* under water. If you understand the basics of electronics and would like to learn why this is, you will enjoy reading this article, posted by Roger Faulkner.

Ray - N4GYN [Editor]

¹ Thomas C. Sefranek, WA1RHP, is a graduate of the University of Massachusetts, has worked at MIT Lincoln Labs, and now works for [Sensio Systems, Inc.](#). I have known Tom since about 1965. We both worked at WFMZ in Allentown at that time.

Numbers Stations, Revisited

By KB6NU

I have written about numbers stations before ([Uno, Dos, Tres...; On the Internet – 11/26/12](#)), but thanks to the guys on the [Glowbugs Google Group](#), I now have some more information:

The Numbers Station. Released earlier this year, this movie stars John Cusack. Here is the IMDB description: A disgraced black ops agent is dispatched to a remote CIA broadcast station to protect a code operator. Soon, they find themselves in a life-or-death struggle to stop a deadly plot before it's too late.

It's currently available for streaming on Netflix, and I watched it tonight. It's kind of violent (lots of people get shot), but it's a decent thriller.

ENIGMA 2000. This group's website describes the group as "a UK based online group, whose aims are to bring together listeners and enthusiasts who monitor and gather information on 'Number Stations' and other related radio transmissions. Through our Yahoo Group monitors can share their logs, discuss frequencies, thoughts and opinions on this most emotive subject."

Jim, K6FWT, notes, "These folks are SERIOUS enthusiasts. I have heard that they surpass many intelligence services with their thoroughness. You can get in up to your eyeballs if you don't watch it."

The post [Numbers stations, revisited](#) appeared first on [KB6NU's Ham Radio Blog](#).

Field Day Results for Category 8A

GARS and Gwinnett ARES did it!
Thanks to all that participated... And those that wish they could!

#	Call	Score	Category	QSOs	Power Mult	GOTA Call	Section	Participants	Club
1	W4GR	10,108	8A	2,781	2	K4KME	GA	136	Gwinnett ARS
2	K3PZN	7,460	8A	2,231	2		MDC	22	Carroll Co ARC
3	VE3VM	7,394	8A	2,359	2	VA3ROW	ONS	48	Niagara Peninsula ARC, Inc.
4	W8QLY	4,962	8A	1,177	2	KD8NZF	OH	50	MVARA
5	VE7SUN	3,480	8A	703	2		BC	17	Delta Amateur Radio Society
6	K4R	3,068	8A	715	2	AE4XO	GA	75	MGRA/CGARC
7	K8OAR	2,630	8A	513	2		MI	26	Ogemaw Arenac ARS
8	K6MEP	1,836	8A	300	2		SB	10	Ventura Co. ARC

- Also -

We had a great exam session at the LDS Church in Lilburn
following the Ham-Cram.

- * Ten applicants tested.
- * Four applicants passed.
- * We have 4 new technicians in our ranks.

Thanks to the following VE's who made this exam session possible:

Don Bagby, KK4NJM
Bob Pursley, WD4KQQ

Thanks & 73's,

Sid Weaver, N4NQ (Co-VE)

Email: exams@gars.org

GARS VE Website: http://groups.yahoo.com/group/ARS_VE_Team/

One Brave Young Man

....As seen through his Grandfather's eyes [ed.]

Over the holiday I was able to go to Charlotte, NC and visit with my Grandson Daniel. He is 14 years old, in his 6th week of Chemo treatment for Leukemia. I took him to the hospital Friday and spent the day with him there. I was amazed at the strength and positive attitude he had going into the procedure. After spending 7 hrs with him, watching the pain, shakes, and energy drain from him I realized how petty my daily complaints of achy joints, and backed-up Atlanta traffic really are.



On Saturday morning he felt better. There was a hobby shop in the shopping center across from our hotel and by chance I found an AM/FM radio kit. So we spent the afternoon together, I, reading the instructions and him doing the work.

I was so surprised that he was focusing on this project. When we completed the kit tears were streaming down my face. I realized that each of you my Ham Radio friends, encouraging me over the past year and half in my Ham Radio hobby, helped make that time we spent together possible.

Thank you.

Mike Smith, KK4KHS



GARS Membership Page

New GARS Members in November

Devin Day (KK4VBS)
Richard Dickson (KK4RFQ)
Barry Edwards (W4BWE)
Howard Gilchrist (KK4VBQ)
Franklin Haynes (KV4SP)
James Hedden (KK4LDD)
Jack Mason (KK4ULP)
Michel Matteau (KK4UGO)
Donald Stewart (KK4VLO)
Samuel Thomas (AB4HZ)

New Members: 10

Total Members as of December 1, 2013
- 258 -

Join us for our weekly breakfast gathering at 7:30 AM Most Saturdays at:

Golden Corral
2155 Riverside Parkway
Lawrenceville, GA 30043
[\(Directions\)](#)

Also, before our Tuesday meeting you are invited to join other GARS members and guests dining at:

The Flying Machine (starting about 5:30 PM)
510 Briscoe Blvd. NE
Lawrenceville, GA
[\(Directions\)](#)

The following members are celebrating birthdays in December

HAPPY BIRTHDAY!!
From All of Us at GARS

David Adcock (KA4KKF)
Richard Atkin (KJ4ZTY)
Steven Back (WB2OGY)
Joel Barrett (W4JOL)
Gloria Gancarz (KK4SZD)
John Harmon (N4JCH)
Franklin Haynes (KV4SP)
David Joyce (KK4FHF)
Michel Matteau (KK4UGO)
Charles McCord (KK4TKJ)
Alan Murray (W4AJM)
Jack Perry (K6JLP)
Ralph Pickwick (KJ4CNC)
Norman Schklar (WA4ZXV)
Mark Stiller (KK4MFC)
Susan Swiderski (AF4FO)
Thomas Whalen (KE4UXW)
Amy Woodrick (KE4IKF)
Eriks Zusmanis (KI4TBC)

GARS Membership

To become a GARS member, or to renew your GARS membership, please visit our website—<http://www.gars.org>

To make changes to your GARS membership (moved, new email address, new phone number, etc.), please email the Membership Committee - membership@gars.org

You can **renew or update** your Amateur Radio license information with the FCC at their website for free - <http://wireless.fcc.gov/uls/index.htm?job=home>

To update your ARRL information, please visit their website - <http://www.arrl.org>

Membership Chairman: Rick Cobb, N4XYY
Committee Members: Karen Albritton, KI4HPP; Richard Atkin, KJ4ZTY.

NET MANAGERS CORNER

Hello Everyone from N4LNE, GARS Net Manager.

I want to thank everyone for taking the time to check in to the nets and I especially wish to thank the NCS and ANCS stations for their time and effort.

Please think about adding your name to the list as NCS or ANCS.

Monday Night Net Stats

DATE	CHECK INS	NCS	ANCS
11/25/2013	29	Ashley K4ASH	David KA4KKF
11/18/2013	33	Ray N4GYN	Bill KK4AUA
11/11/2013	31	Sandy KJ4DRO	Mike KK4KHS
11/04/2013	26	Ray N4GYN	Sandy KJ4DRO

Wednesday Night “Know It All” Net Stats

DATE	CHECK INS	NCS	HOST
11/27/2013	15	Jeff AB4HF	Larry WB4FGF
11/20/2013	28	Jeff AB4HF	Paul W4KLY
11/13/2013	15	Jeff AB4HF	Richard KK4RMH
11/06/2013	22	Jeff AB4HF	Norm WA4ZXV

73,

See you on the Nets!

Phil, N4LNE
Net Manager

TOPICS for the “KNOW IT ALL” Net - For December -

- 12-04 Antennas
- 12-11 Licensing
- 12-18 Radios-multi mode mobile
- 12-25 Merry Christmas! —no net

Come join us and become a “KNOW IT ALL”.

TIME: 8:30 every Wednesday evening on the GARS repeater - 147.075, PL 82.5

ARRL CONTESTING INFO

December 2013

06-08 160 Meter

ARRL 160 Meter Contest: First full weekend in December, 2200 UTC Friday through 1559 UTC Sunday.

14-15 10 Meter

ARRL 10 Meter Contest: Second full weekend in December, 0000 UTC Saturday through 2359 UTC Sunday.

22 Rookie Roundup-CW

Rookie Roundup: Third Sunday, 1800 UTC through 2359 UTC.

January 2014

01 Straight Key Night

Not a contest; rather it is a day dedicated to celebrating our CW heritage. Participants are encouraged to get on the air and simply make enjoyable, conversational CW QSOs.

05-06 RTTY Roundup

Amateurs worldwide contact and exchange QSO information with other amateurs using digital modes (Baudot RTTY, ASCII, AMTOR, PSK31, and Packet—attended operation only) on 80, 40, 20, 15, and 10 meter bands.

06 Kids Day

To promote Amateur Radio to our youth. Share the excitement with your kids or grandkids, a Scout troop, a church or the general public!

19-21 January VHF

For amateurs in the US and Canada (and their possessions) to work as many amateur stations in as many different 2 degrees x 1 degree Maidenhead grid squares as possible using authorized frequencies above 50 MHz.

February

11-15 School Club Roundup

There are two School Club Roundups each year. Each 5-day event runs Monday through Friday from 1300 UTC Monday through 2359 UTC Friday.

16-17 International DX – CW

To encourage W/VE stations to expand knowledge of DX propagation on the HF and MF bands, improve operating skills, and improve station capability by creating a competition in which DX stations may only contact W/VE stations.

HAMFEST CALENDAR

Southeast US

01/04/2014 | Freeze Fest 2014

Location: Locust Fork, AL

Type: ARRL Hamfest

Sponsor: Blount County Amateur Radio Club

Website: <http://freezefest.com>

01/11/2014 | Greenwood, SC

Hamfest 2014

Location: Greenwood, SC

Type: ARRL Hamfest

Sponsor: Greenwood Amateur Radio Society

Website: <http://w4gwd.org>

02/22/2014 | Dalton Hamfest

Location: Dalton, GA

Type: ARRL Hamfest

Sponsor: Dalton Amateur Radio Club

Website: <http://daltonhamfest.com>

03/01/2014 | Alabama Section

Convention (BirmingHAMfest

2014)

Location: Birmingham, AL

Type: ARRL Convention

Sponsor: Birmingham ARC

Website: <http://BirminghamFest.org>

03/15/2014 | Ellijay Ham Fest

Location: Ellijay, GA

Type: ARRL Hamfest

Sponsor: Ellijay Amateur Radio Society

Website: <http://www.w4hhh.org>

03/29/2014 | Thomasville ARC

Hamfest

Location: Thomasville, GA

Type: ARRL Hamfest

Sponsor: Thomasville Amateur Radio Club

Website: <http://thomasvilleamateurradioclub.com/hamfest/>

BSA Venture Crew 73 Wants You!

IF YOU are between 14 and 21 years old, enjoy outdoor activities, and have an interest in radio technology,
Venture Crew 73 is for you.

- Venture Crews are part of the Boy Scouts of America.
- *Venture crew 73 is chartered by the Gwinnett Amateur Radio Society.*
- Venture crew 73 is coed.
- *Meetings are on the second Tuesday of the month, 7:00 pm, at EAA 690 Hangar at:
Briscoe Field - Sports Aviation Complex
Hangar 1, 690 Airport Road
Lawrenceville, GA 30045*
- Crew 73 is a youth-run organization, which means that our Crew President and other youth plan the Crew's outings and activities each month.

We enjoy:

- ◊ Camping
- ◊ Hiking
- ◊ Horseback Riding
- ◊ Shooting Sports

- Crew activities usually mix high adventure and the use of Amateur Radio.
- For more information, attend our next meeting or contact:

Steve Back, WB2OGY

Venture Crew 73 Committee Chairman

Phone: 770-712-9069

Email: committeechair@venturecrew73.org

Jeff Lee, AF4JL

Venture Crew 73 Advisor

Phone: 678-475-3165

Email: advisor@venturecrew73.org



GARS Officers and Committee Chairs

Kyle Albritton, W4KDA
President



Earl Whatley, AF4FG
Vice President



Hal Collier, W4IGE
Secretary



Ralph Pickwick, KJ4CNC
Treasurer, Apparel Manager



Sandy Jackson, KJ4DRO
Program Manager



Rick Cobb N4XYY
Membership Chairman



Dave Bruse, W4DTR
VE Team



David Adcock, KA4KKF
Webmaster, Field Day Chairman



Dorothy Jubon, N2DLJ
Public Information Officer



Norm Schklar, WA4ZXV
TechFest Chairman



Ray Bailey, N4GYN
GARzette Editor



Jeff Cutchins AB4HF
Multimedia Chairman



John Ackermann, N8UR
W4GR Trustee



Eddie Foust, WD4JEM
Repeater Chairman



Mike Weathers, ND4V
WAS-Checker, Historian



Phil McCleary, N4LNE
Net Manager, ELMER Chair



Mike Swiderski, K4HBI
Technical Advisor



GARS Communications

2 Meter Repeater
147.075(+) MHz
82.5 PL Tone

2 Meter Repeater
147.255(+) MHz
107.2 PL Tone

APRS
144.390 -- 1200 Baud
W4GR

6 Meter Repeater
53.110 (-1 MHz)
82.5 PL Tone

D-Star
WD4STR
145.060 + (1.4 MHz)
440.550 + (5 MHz)

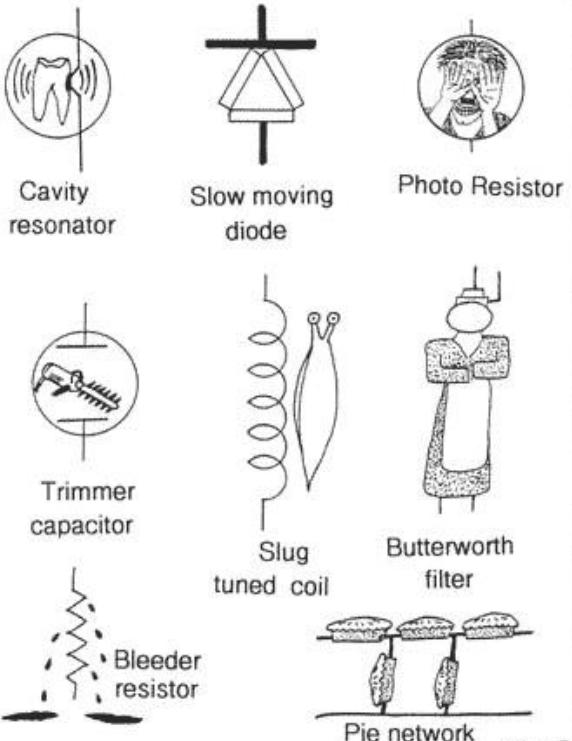
70 Cm Repeaters
444.525(+) MHz
82.5 PL Tone
442.100(+)
82.5 PL Tone

Main Repeater Site
Oak Street,
Lawrenceville

Backup Repeater Site
Lanier Mountain,

Just for Fun

Copyright © 1997 by Greg Trook



Little known standard electronic symbols.

GARS Recurring Calendar

- ♦ Monthly club meeting is the 2nd Tuesday of the month at 7 pm
- ♦ Every Monday at 8 pm: GARS Want, Swap, Sell, and Information Net on the GARS 2-meter repeater
- ♦ Every Wednesday at 8:30 pm: GARS Know It All Net on the GARS 2-meter repeater
- ♦ Every Thursday at 9 pm: GARS Round Table Net, 2 & 6 Meters
- ♦ Every Saturday at 7:30 am: GARS Weekly Family Breakfast, Golden Corral Restaurant, Riverside Drive, Lawrenceville

Meeting Minutes for November 12, 2013

Kyle Albritton, W4KDA, President, called the meeting to order at 7:02 pm.

First time visitors and special guests were recognized.

Introductions were made by those present.

Kyle called for committee reports:

Treasurer's report – presented by treasurer, Ralph Pickwick, KJ4CNC

TechFest raffle tickets can be purchased on the GARS website.

Any donations to GARS should be made before the end of the year for tax year 2013.

The next HamCram will be Dec 14th at the EOC. Preregistrion is required on the GARS website. The cost is \$20 and includes lunch.

Membership report – available in the *Gazette*.

GARS currently has 260 members.

Program Manager: The December meeting will be at the GARS Holiday Party.

JOTA went well and the volunteers were thanked for their service

The CQ Worldwide contest event at the EAA on October 26th went well and had 26 attendees.

The Stone Mountain Hamfest went well again this year and KK4KHS thanked the volunteers on behalf of the Alford Memorial Radio Club.

HRO Manufacturers Day will be on November 16th from 9am-3pm. There will be a TS-590s given away as well as other items. GARS will be serving popcorn.

The GARS Holiday Party will be on December 6th at the EAA starting at 6:30pm. Dinner reservations can be made on the GARS website. There will be a Joke off and other activities.

Hal Collier, W4IGE, requested volunteers to help with the Children's Healthcare of Atlanta parade on December 7th in Midtown Atlanta.

The program for tonight was "The Massive Homebrew Show and Tell".

Prize drawings were held.

There were 62 attendees.

The meeting was adjourned at 8:14pm.

Hal, W4IGE, Secretary

'Tis The Season



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Come in Donner? Come in Blitzen? It's time to pull the sleigh! Are you there?

GARS CALENDAR OF EVENTS DECEMBER 2013

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
						1
2 8:00 pm - 8:30 pm GARS 2m Net	3 6:30 pm - 8:00 pm GARS Exec Meeting	4 8:30 pm - 9:30 pm GARS Know-It-All Net	5	6 GARS Christmas Party! 7:00 pm	7 7:30 am - 9:30 am Breakfast at Golden Corral Riverside Drive	8
9 8:00 pm - 8:30 pm GARS 2m Net	10	11 8:30 pm - 9:30 pm GARS Know-It-All Net	12	13	14 7:30 am - 9:30 am Breakfast at Golden Corral Riverside Drive	15
16 8:00 pm - 8:30 pm GARS 2m Net	17	18 8:30 pm - 9:30 pm GARS Know-It-All Net	19	20	21 7:30 am - 9:30 am Breakfast at Golden Corral Riverside Drive	22
23 8:00 pm - 8:30 pm GARS 2m Net	24	25 CHRISTMAS	26	27	28 7:30 am - 9:30 am Breakfast at Golden Corral Riverside Drive	29
30 8:00 pm - 8:30 pm GARS 2m Net	31	NOTES:				

Metro Testing Sessions	Ham Exam Results for November 10, 2013	Metro Club Meetings
<p>GARS publishes Metro Atlanta VE exam schedules as a service and is not responsible for errors or changes. Call and confirm schedules before going. All sessions are walk-in. Take copies of current license and certificate of completed elements with you to all sessions. Find additional sessions online at http://www.arrl-ga.org.</p> <p>First Sunday, ODD Months 2 pm (Jan, Mar, May, Jul, Sep, & Nov) WCARS VEC Braselton Public Utility Building 4986 Highway 53, Braselton, GA Roger Gibson, WB4T (770) 271-4210 or (770) 712-9560 w4rlg@bellsouth.net</p> <p>First Sunday, EVEN Months 2 pm (Feb, Apr, Jun, Aug, Oct, Dec) WCARS VEC Hall County EOC 470 Crescent Dr. Gainesville, Ga. Perry Roper, KO4RD (770) 536-3056</p> <p>Second Saturday, ODD Months ARRL VEC 8:30 a.m. Stone Mountain Methodist Church 5312 West Mountain St. Stone Mountain Bob Varone, W4ETN (770) 978-3179</p> <p>Second Sunday VEC: W5YI 2 pm Gwinnett County Fire Station #5 3001 Old Norcross Road Duluth, GA 30096 Contact: Dave Bruse, W4DTR Email: exams@gars.org</p> <p>Third Saturday VEC: W5YI 3 pm (Except December) Auburn City Hall Council Room 1369 Fourth Avenue Auburn, GA Steve Donellan, N5SMD (404) 520-0368 <i>(cont. next column)</i></p>	<p>We had an excellent Exam Session Sunday Nov. 10th</p> <p>4 out of 4 applicants passed!</p> <p><u>Ham exam session results:</u></p> <ul style="list-style-type: none"> - 3 new Technicians - 1 new Extra (passed Technician, General, and Extra) <p>Thanks to the VE's who made this exam session possible:</p> <p>--</p> <ul style="list-style-type: none"> - Dave Bruse, W4DTR (CVE) - Bill Cherepy, WB4WTN - Bob Pursley, WD4KQQ - Louis Manglass, Jr, NY4F - Rick Cobb, N4XYY <p>Thanks & 73,</p> <p><i>Dave Bruse, W4DTR</i></p> <p>Email: exams@gars.org</p>  <p>Fourth Tuesday ARRL VEC 7 pm @ United Way Service Center 6279 Fairburn Rd., Douglasville Jessie Clower, KB4WFK (770) 942-6466</p> <p>Fourth Sunday 2:30 pm Georgia Tech VanLeer Elec. Building Rm. W218, 777 Atlantic Dr. See www.w4aql.com Alexander G. Carver (404) 894-2936 acarver@ece.gatech.edu</p>	<p>First Tuesday Kennehoochee ARC Downtown Marietta Fire Station #1, Training Room 112 Haynes Street Marietta, Georgia 30060 Meeting begins at 7:00pm Talk In 146.880(-)</p> <p>First Thursday Atlanta Radio Club Georgia Red Cross HQ 1955 Monroe Dr., Atlanta Meeting is at 7:30pm Talk In -146.820(-) N.E. Georgia ARC Commerce Public Library Meeting is at 6:30pm Talk In - 147.225(+) PL 123.0</p> <p>Second Monday Georgia Tech ARC Room W218 Van Leer Electrical Engineering Bldg. Georgia Tech Campus Meeting at 7:00pm</p> <p>Second Thursday Alford Memorial Radio Club Annistown Road Baptist Church Intersection of Annistown Rd & Spain Rd Stone Mountain Dinner at 6:00pm Meeting at 7:30pm Talk In - 146.760(-)</p> <p>Second Saturday North GA QRP Club Board Room of The Shepherd Center at 2020 Peachtree Rd, NW, Atlanta at 10:00 AM</p> <p>Third Tuesday North Fulton Amateur Radio League Masonic Lodge 194 Milton Avenue Alpharetta, Georgia meeting at 7:30pm Talk In - 145.47(-)</p>
		<p>For more, go to: http://www.gars.org/</p>

Electrostatic Discharge

(Continued from page 7)

... a broken strap or lead is no protection at all.

Always be aware of the ease with which ESD can damage a part or even a part in a circuit. Take precautions to make sure you, your parts, and your tools are at the same potential. Use anti-static bags and foam to store parts when you are working on them.

Some simple preventive measures can go a long way to guaranteeing that your next project or upgrade goes smoothly and delivers the performance you expect.

David Kuechenmeister, N4KD



The GARzette

The GARzette is the official monthly newsletter of the Gwinnett Amateur Radio Society, serving its members and other persons interested in the advancement of the amateur radio art.

Original articles, art, and photos are invited and encouraged. Previously copyrighted submissions cannot be accepted for reprinting unless permission from the appropriate publisher is provided in writing along with the information being submitted. If reprints are from publications allowing their unrestricted use, please include a copy of the printed permission contained in the publication.

If possible, bring your articles to the monthly meeting in Microsoft Word or rich text (.rtf) or text or HTML format or by email to n4gyn@arrl.net. Artwork can be accepted in most any graphics format and can be submitted via email to the same address. Alternate means of submittal can be arranged when necessary.

In keeping with the amateur radio spirit, permission is hereby granted for the reproduction of The GARzette articles by other amateur radio club newsletters provided that proper credit is given to the individual author and *The GARzette*.

The GARzette is published each month with the assistance of Norm Schklar, WA4Z XV who prints copies for distribution at meetings, etc. and Dave Bruse, W4DTR, who distributes the news letter electronically.

Deadline for submissions is the 28th of each month for inclusion in the following month's issue.

For additional information view our Website at: <http://www.gars.org>

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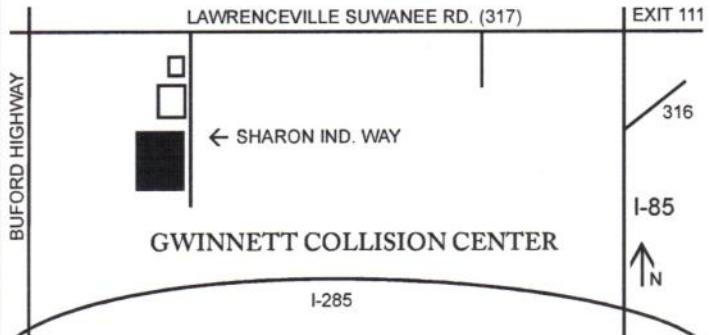
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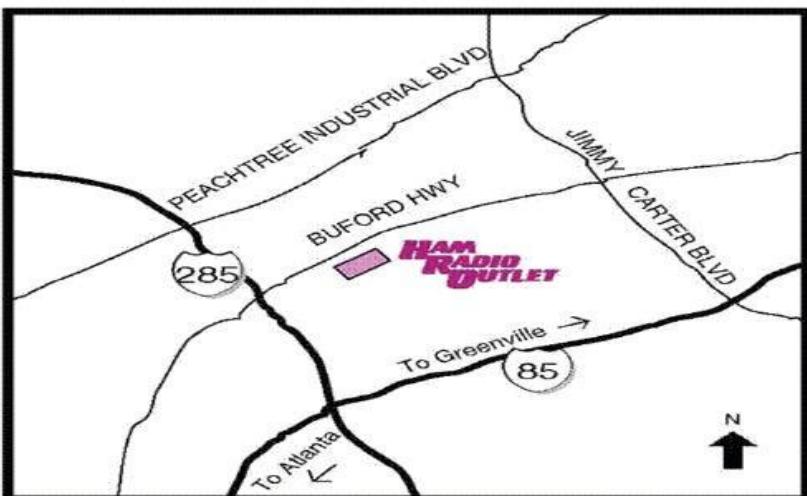
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